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(54) Title: **IRCINIASTATINS A AND B**

(57) Abstract: The Indo-Pacific marine sponge *Ircinia ramosa* has been found to contain two powerful (GI<sub>50</sub> 0.001 to <0.0001 µg/ml) murine and human cancer cell growth inhibitors, denominated herein as irciniastatin A and irciniastatin B. Both were isolated (10-3 to 10-4 % yields) by cancer cell line bioassay-guided techniques and named irciniastatins A (1) and B (2). Structural elucidation by a combination of spectral analyses, primarily high resolution mass and 2D-NMR (principally APT, HMQC, HMBC and ROESY) revealed unusual structures 1 and 2.

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